# Predictive Tools Forum

The Predictive Tools Forum is a five-hour event in which expert presenters will discuss their work in the use and development of predictive tools for predicting water quality at beaches. The topics of the presentations, all relating to the use of predictive tools, were selected by the moderators and were paired generally with the areas of interest and expertise of the presenters.

The format of the session will consist of the presenters making "Brief stimulating comments (<5 slides), then open discussion". The object is to introduce information, make a few observations, and/or assert a hypothesis for open discussion not only among the presenters, but with the attendees in general. A departure from this format will occur towards the end of the session, when an in-depth look at the capabilities of EPA's Virtual Beach Model Builder will provide attendees with an introduction to one of several proven approaches to statistical regression modeling in predicting water quality for beach advisories and notification.

*Session Moderators: David Rockwell, John Wathen, Richard Zepp*

**1:00–1:10 Introduction**

Each group leads: Brief stimulating comments (<5 slides), then open discussion

**1:10–2:25 Practical aspects of statistical model development**

1:10–1:30 Dealing with data variability. How much data do you need—**Stan Grant & Walter Frick**
1:30–1:45 Selection of Independent variables—**Richard Whitman** & **Samir Elmir**
1:45–2:00 Automated equipment on site, Confounding, data density, cost, off–site sources—**Steve Corsi & Richard Zepp**
2:00–2:20 Modeling for identifiable vs. non–point sources, complex—**Zongfu Ge** &, **Michelle Cutrofello**
2:20–2:35 Data retrieval– Current/ remote sensing, historical and forecast data—**David Rockwell & Gene Whelan**

**2:25–4:30 Challenges and New Developments in Predictive Modeling**

2:25–2:45 Alternative Predictive Techniques—**Michael Fienen** & **Stan Grant**
2:45–3:05 Forecasting and process model development—**David Schwab** & **Rob Ragsdale**
3:05–3:25 Other new Developments in modeling —**Mike Cyterski & Josefina Olascoaga/ Laura Fiorentino**

**3:25–3:40 Break**

3:40–4:00 Modeling Watershed impacts and using hybrid approaches—**Gene Whelan & Marirosa Molina**
4:00–4:15 Modeling qPCR vs culturable—**Julie Kinzelman & Richard Whitman**
4:15–4:30 Sediment resuspension potential and turbidity—**Helena Solo-Gabriele/Phillips/Feng & Zhongfu Ge**

**4:30–5:00 Virtual Beach and other current approaches– Statistical tools for model development**

4:30–5:00 VB 2.0—**Mike Cyterski & Julie Kinzelman**